

CLAIMS

1. A press device comprising:

a base;

a support plate supported in parallel with the base through a plurality of guide poles installed upright on the base;

a slider capable of sliding on said guide poles and capable of vertical movement between said base and said support plate;

a plurality of drive shafts engaged with a plurality of pressurizing points distributed on the slider for pressing the slider;

a plurality of motors for driving each of the drive shafts respectively;

control means for driving control of each of the motors independently among the plurality of motors; and

displacement measuring means for measuring position displacement of said slider with respect to said base,

wherein, in teaching processing performed in advance and/or simulation, data of torque against time or press position are extracted at each time stage or each press position stage during working, said data being able to correct inclination of said slider during working at each time stage or each press position stage based on rotation of said drive shaft by each of said motors and having to be supplied to each of said motors, and

in press working, said control means performs additional driving based on said data of torque against time or press position for each of said motors at each of said time stages or press position stages where each of said motors is independently driven and controlled.

2. The press device according to claim 1, wherein the data of torque against time or press position at each time stage or each press position stage during said working, said data having to be supplied to each of said motors are determined and extracted according to a delay amount to a lowering command value toward said slider for each of said pressurizing points corresponding to the plurality of motors.

3. The press device according to claim 1, wherein the data of torque against time or press position at each time stage or each press position stage during said working, said data having to be supplied to each of said motors are determined and extracted based on a difference between a pressurizing point with a larger delay to the lowering command value toward the slider and the pressurizing point with the least delay to the lowering command value toward the slider as a reference among said plurality of pressurizing points corresponding to the plurality of motors.

4. The press device according to claim 1, wherein each of the plurality of motors for driving each of said drive shafts is constituted so as to rotate said drive shaft with at least two motors as a pair,

said control means performs driving control for at least one of the motors based on a command value for rotating the pair of drive shaft, and

performs driving control for additional driving for at least the other of said motors based on said data of torque against time or press position.

5. The press device according to claim 4, wherein the motor on the side of driving control based on said command value is constituted by a pulse motor, while the motor on the side of said additional driving is constituted by a servo motor.